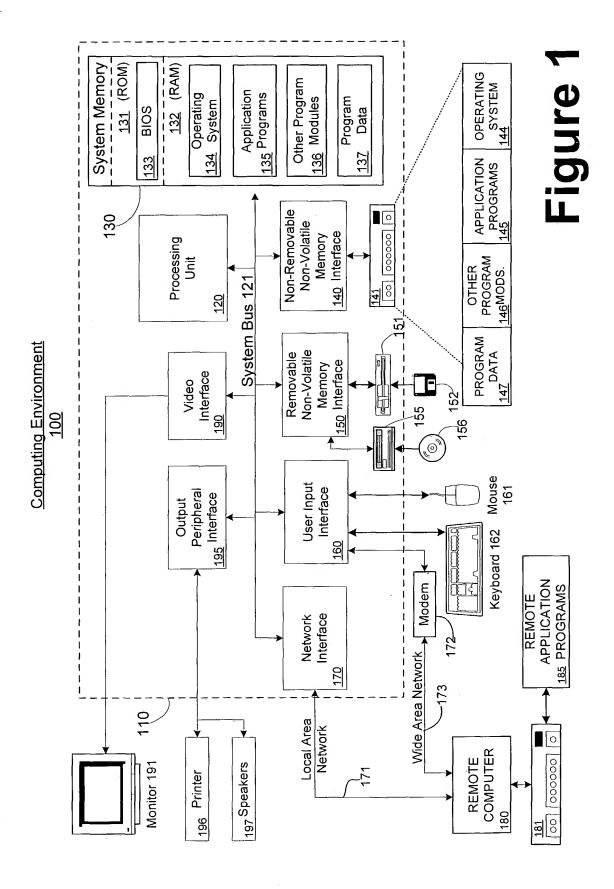
Sheet 1 of 5
Applicant: Jeffery A. East, Andrei Marinescu, and Michael J. Zwilling
Title: Resynchronization of Multiple Copies of a Database after A Recovery
Fork
Filed: Herewith
Docket No.: MSFT-1742 (301617.01)

Attorney: George J. Awad (215) 568-3100



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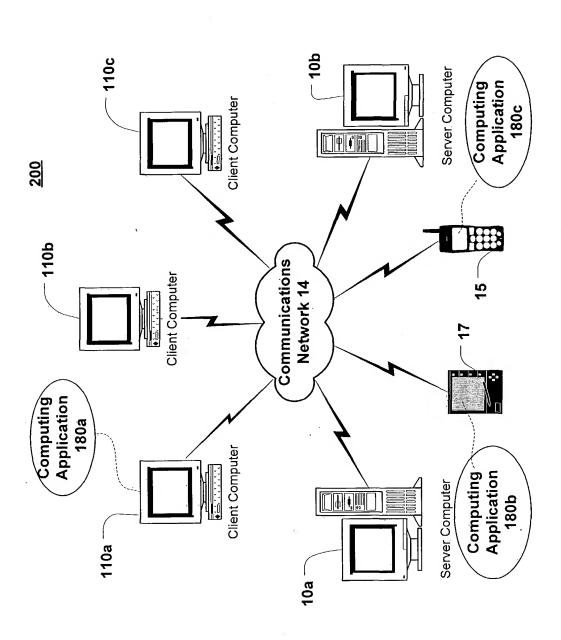
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## Figure 2

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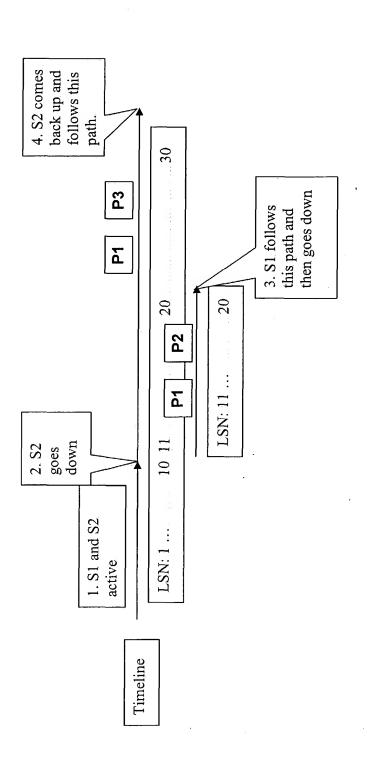
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## Figure 3

Filed: Herewith Docket No.: MSFT-1742 (301617.01) Attorney: George J. Awad (215) 568-3100 Pages. Prevent Use of Reperform Operations Recorded from FOLSN Allow Database to Be S1-D1 Database until Clear MPLSN Value. to MPLSN on S1-D1 Recovered completed. Format Page Record 414 416 422 End **Records After FOLSN** FOLSN. Remove Log Replay Log Records On S1 Starting With Last Checkpoint b/f Conventional Log continuing to the FOLSN to MPLSN the FOLSN and S1 Catches Up with S2 Using Copies of Log Records from S1 Requests Log Record To Analyze Shipping from S2 from S1 Z 418 410 412 430 432 402 404 406 SN if Page LSN Go to Next Log MPLSN = Page Sequence Number is larger than Set the Max Page Seq. Log Number (MPLSN) to Equal First Log Record End-of-Log on S1 Number (FOLSN) Start Scan of D1 Log on S1. Get Log Sequence Scan Until the After Fail Over **Obtain FOLSN** Fail Over Log MPLSN Record Reached. from S2 Z Z **Current Contents of** page is Deallocated Page P from S2. If in the current end-PageLSN field set **Record With The** of-log LSN on S2 sends a Dummy LSN In The Log **Previous Page** Page with the Page Update og Record 2 on S2 then S2 Retrieve the Compare **PPLSN** < FOLSN FOLSN Start 426 428

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